

PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF AN EXISTING TRAFFIC SIGNAL DUE TO THE WIDENING OF ST. LUKES LANE AT MD 26 (LIBERTY ROAD) IN BALTIMORE COUNTY. MD. 26 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

II. INTERSECTION OPERATION

THIS INTERSECTION WILL OPERATE IN A NEMA EIGHT (8) PHASE, FULL TRAFFIC ACTUATED MODE.

III. CONTROLLER REQUIREMENTS

A FULL-TRAFFIC-ACTUATED EIGHT-PHASE CONTROLLER WITH THREE (3) FOUR CHANNEL TIME DELAY OUTPUT LOOP DETECTOR AMPLIFIERS, HOUSED IN A NEMA SIZE 6 BASE MOUNTED CABINET.

IV. MAINTENANCE OF TRAFFIC

MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR UTILIZING THE FOLLOWING STANDARD PLATES FOR TRAFFIC CONTROL: 104.00 - 104-00-30, 104.38-02, 104.39-02, 104.40-02, 104.41-02.

PROJECT CONTACTS

THE CONTACT PERSONS FOR BALTIMORE COUNTY ARE AS FOLLOWS:

MR. GREG CARSKI
CHIEF, DESIGN SECTION
(410) 887-3554

MR. GEOFF RICE
PROJECT MANAGER, BALTIMORE COUNTY TRAFFIC
ENGINEERING AND TRANSPORTATION PLANNING
(410)887-3554

MR. BILL O'NEILL
SUPERINTENDENT,
TRAFFIC SIGNAL OPERATIONS
(410) 887-8601

THE POINT OF CONTACT FOR BALTIMORE GAS & ELECTRIC IS AS FOLLOWS:

BGE CALL CENTER
410-850-4620

EQUIPMENT LIST 'A'

EQUIPMENT TO BE SUPPLIED BY BALTIMORE COUNTY

QUANTITY	UNIT	SPECIFICATION SECTION	DESCRIPTION
1	EA.	SP.	TWO-CHANNEL, TIME DELAY OUTPUT, LOOP DETECTOR AMPLIFIER
4	EA.	SP.	12 INCH 1 WAY 3 SECTION (R.A.YA.GA) SIGNAL HEAD MASTARM MOUNT
9	EA.	SP.	12 INCH 1 WAY 3 SECTION (R.Y.G) SIGNAL HEAD MASTARM MOUNT
2	EA.	SP.	12 INCH, ONE WAY TWO SECTION (DON'T WALK WALK) PEDESTRIAN SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR PEDESTAL POLE TOP MOUNTING AND CUTAWAY VISORS.
1	EA.	SP.	MICRO-LOOP PROBE SET WITH 500 FOOT LEAD IN.
2	EA.	SP.	12 INCH, ONE WAY TWO SECTION (DON'T WALK WALK) PEDESTRIAN SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR POLE MOUNTING AND CUTAWAY VISORS.
3	EA.	SP.	PEDESTRIAN PUSH BUTTON AND R10-3C SIGN.
178	SF.	S13	FLAT SHEET ALUMINUM SIGNS CONSISTING OF: - 1 EACH ASSOCIATED SHIELD ASSEMBLY "EAST MD 26 RIGHT ARROW" (36"x75") -POLE MOUNT - 1 EACH ASSOCIATED SHIELD ASSEMBLY "WEST MD 26 LEFT ARROW" (36"x75") -POLE MOUNT - 1 EACH R3-5(R) SIGN (30"x30") -MAST ARM MOUNT - 2 EACH D3-(1) SIGN (VAR"x32") DUAL FACE -MAST ARM MOUNT - 1 EACH D3-2 SIGN (VAR"x16") -MAST ARM MOUNT - 4 EACH R10-3C SIGN (9"x12") -POLE MOUNT - 2 EACH R3-5(L) SIGN (30"x30") -MAST ARM MOUNT - 2 EACH R3-7(R) SIGN (30"x30") -GROUND MOUNT

EQUIPMENT LIST 'C'

EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7941 CONNELEY DRIVE, HANOVER, MARYLAND 21076.

QUANTITY	DESCRIPTION
4	STEEL STRAIN POLE
11	SIGNAL HEAD
8	PEDESTRIAN SIGNAL HEAD

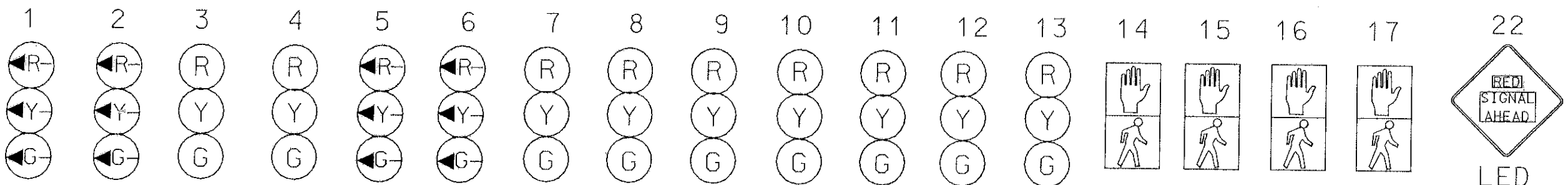
NOTES: 1. ALL EQUIPMENT TO BE REMOVED AND NOT LISTED ABOVE SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
2. THE CONTRACTOR SHALL NOTIFY THE SHA AT (410) 787-7652 AT LEAST THREE DAYS IN ADVANCE OF DELIVERY.

EQUIPMENT LIST 'B'

EQUIPMENT FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

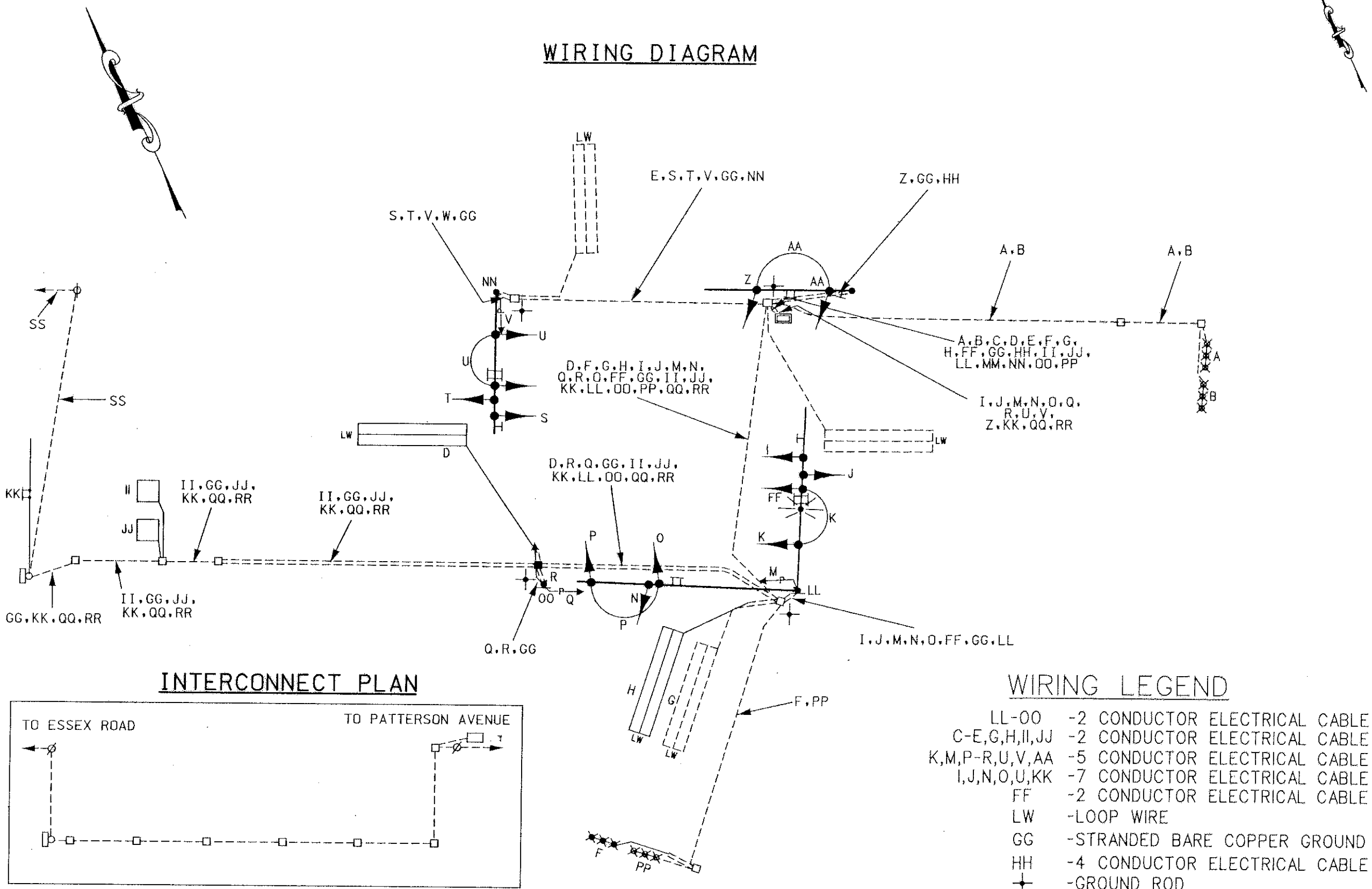
QUANTITY	UNIT	SPECIFICATION SECTION	DESCRIPTION	QUANTITY	UNIT	SPECIFICATION SECTION	DESCRIPTION
4	CY	205	TEST PIT EXCAVATION	1	EA	XXXX	AS BUILT FOR TRAFFIC SIGNAL
135	LF	XXXX	24 INCH WHITE REFLECTIVE PAVEMENT MARKINGS	4	EA	804	FURNISH AND INSTALL GROUND ROD -3/4 INCH DIAMETER X 10-FOOT LENGTH
265	LF	XXXX	12 INCH WHITE REFLECTIVE PAVEMENT MARKINGS	293	LF	810	FURNISH AND INSTALL NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
139	SF	813	INSTALL OVERHEAD SIGN	1760	LF	810	FURNISH AND INSTALL ELECTRICAL CABLE- 2 CONDUCTOR (ALUMINUM SHIELDED)
26	SF	XXX	INSTALL POLE MOUNT SIGN	390	LF	810	FURNISH AND INSTALL ELECTRICAL CABLE- 2 CONDUCTOR (NO. 14 AWG)
13	SF	813	INSTALL GROUND MOUNTED SIGN	270	LF	810	FURNISH AND INSTALL ELECTRICAL CABLE- 2 CONDUCTOR (NO. 12 AWG) TYPE "TC"
30	LF	812	FURNISH AND INSTALL 4"x4" WOOD SIGN SUPPORT	925	LF	810	FURNISH AND INSTALL ELECTRICAL CABLE- 7 CONDUCTOR (NO 14 AWG)
17	EA	SP	INSTALL SIGNAL HEAD (ANY TYPE)	375	LF	810	FURNISH AND INSTALL ELECTRICAL CABLE- 5 CONDUCTOR (NO 14 AWG)
1	EA	811	FURNISH AND INSTALL ELECTRICAL HANDHOLE	2925	LF	810	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO 14 AWG)
11	CY	801	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION	452	LF	815	FURNISH AND INSTALL SAWCUT FOR SIGNAL (LOOP DETECTOR)
34	LF	805	FURNISH AND INSTALL 1" LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE	2	EA	818	FURNISH AND INSTALL 21-FOOT STEEL POLE WITH A SINGLE 38 FOOT MAST ARM
620	LF	805	FURNISH AND INSTALL 3" SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED	1	EA	818	FURNISH AND INSTALL 14-FOOT BREAKAWAY PEDESTAL
106	LF	805	FURNISH AND INSTALL 3" PVC SCHEDULE 80 ELECTRICAL CONDUIT-SLOTTED	1	EA	815	INSTALL MICRO-LOOP PROBE SET
10	LF	805	FURNISH AND INSTALL 4" PVC SCHEDULE 80 ELECTRICAL CONDUIT-SLOTTED	1	EA	806	FURNISH AND INSTALL 250 W HPS LAMP AND LUMINAIRE
1	EA	807	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT	1	EA	818	FURNISH AND INSTALL 20' LIGHTING ARM ON SIGNAL STRUCTURE.
1	EA	818	FURNISH AND INSTALL 27-FOOT STEEL POLE WITH A TWIN 60 FT./ 50 FT. MAST ARM, CUT TO 45 FT.	785	LF	818	FURNISH AND INSTALL 12-PAIR COMMUNICATION CABLE, JELLYFILLED (UNDERGROUND).
1	EA	104	MAINTENANCE OF TRAFFIC	1	EA	XXXX	FURNISH AND INSTALL 4 INCH SCHEDULE 80 PVC BEND

PHASING SEQUENCE CHART



PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	22
PHASE 1 & 5	←G→	←G→	R	R	←G→	←G→	R	R	R	R	R	R	R	DW	DW	DW	DW	FL/RSA
PHASE 1 & 5 CHANGE	←Y→	←Y→	R	R	←Y→	←Y→	R	R	R	R	R	R	R	DW	DW	DW	DW	FL/RSA
PHASE 1 & 6	←G→	←G→	G	G	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	SA
PHASE 1 & 6 CHANGE	←Y→	←Y→	G	G	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	SA
PHASE 2 & 5	←R→	←R→	R	R	←G→	←G→	G	G	R	R	R	R	R	DW	DW	DW	DW	FL/RSA
PHASE 2 & 5 CHANGE	←R→	←R→	R	R	←Y→	←Y→	G	G	R	R	R	R	R	DW	DW	DW	DW	FL/RSA
PHASE 2 & 6	←R→	←R→	G	G	←R→	←R→	G	G	R	R	R	R	R	WK	WK	DW	DW	SA
PED CLEARANCE	←R→	←R→	G	G	←R→	←R→	G	G	R	R	R	R	R	FL/DW	FL/DW	DW	DW	SA
PHASE 2 & 6 CHANGE	←R→	←R→	Y	Y	←R→	←R→	Y	Y	R	R	R	R	R	DW	DW	DW	DW	SA
PHASE 4 & 8	←R→	←R→	R	R	←R→	←R→	R	R	G	G	G	G	G	DW	DW	DW	DW	FL/RSA
PHASE 4 & 8 CHANGE	←R→	←R→	R	R	←R→	←R→	R	R	Y	Y	Y	Y	Y	DW	DW	DW	DW	FL/RSA
PHASE 4 ALT	←R→	←R→	R	R	←R→	←R→	R	R	G	G	G	G	G	DW	DW	WK	WK	FL/RSA
PED CLEARANCE	←R→	←R→	R	R	←R→	←R→	R	R	G	G	G	G	G	DW	DW	FL/DW	FL/DW	FL/RSA
PHASE 4 ALT CHANGE	←R→	←R→	R	R	←R→	←R→	R	R	Y	Y	Y	Y	Y	DW	DW	DW	DW	FL/RSA
FLASHING OPERATION	FL←R→	FL←R→	FL/Y	FL/Y	FL←R→	FL←R→	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	SA

WIRING DIAGRAM



WIRING LEGEND

LL-00	-2 CONDUCTOR ELECTRICAL CABLE (NO.14 A.W.G.)
C-E,G,H,I,J,J	-2 CONDUCTOR ELECTRICAL CABLE (ALUMINUM SHIELDED) (NO.14 A.W.G.)
K,M,P-R,U,V,AA	-5 CONDUCTOR ELECTRICAL CABLE (NO.14 A.W.G.)
I,J,N,O,U,KK	-7 CONDUCTOR ELECTRICAL CABLE (NO.14 A.W.G.)
FF	-2 CONDUCTOR ELECTRICAL CABLE COPPER TYPE T/C (NO. 12 A.W.G.)
LW	-LOOP WIRE
GG	-STRANDED BARE COPPER GROUND WIRE (NO.6 A.W.G.)
HH	-4 CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
+	-GROUND ROD
A,B,F,PP	-MICRO-LOOP PROBE LEAD IN
QQ	-EXISTING HIB 12-PAIR COMMUNICATION CABLE
RR	-12-PAIR COMMUNICATION CABLE
SS	-EXISTING 12-PAIR COMMUNICATION CABLE FOR INTERCONNECT

REVISIONS

8/27/83
RECONSTRUCT TRAF. SIGNAL W/ GEO. IMPROVEMENTS BY BALT. COUNTY
ADD H.I.B. FOR EASTBOUND MD 26 SHA # AW-2805185

APPROVALS

ASST. DIVISION ENGINEER, TRAFFIC
ASST. DISTRICT ENGINEER, TRAFFIC
CHECKED BY: ENGINEERING DESIGN DIVISION
DIRECTOR, OFFICE OF TRAFFIC & SAFETY



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
MD 26 (LIBERTY ROAD) at ST. LUKES LANE / KING JAMES CIRCLE
GENERAL INFORMATION SHEET 1 OF 1

LOG MILE	DRAWN BY: BALT. COUNTY	F.A.P. NO.	PLAN SHEET NO.
	CHECK BY: BALT. COUNTY	S.H.A. NO.	TS 3828-GI
SCALE: N/A	COUNTY	BALTIMORE	2 OF 2